

WHAT IS CLAIMED IS:

1. An image sensing apparatus which can be connected to an external device and receives power from the external device, the external device having a  
5 suspend/resume function of storing, for a program under processing, a state necessary for execution of the processing in memory and re-executing the interrupted processing of the program on the basis of stored contents, comprising:  
10 image sensing means for converting an optical image of an object into an electrical image signal; and  
control means for, when the external device is set in a suspend state during image sensing, stopping operation of at least a part of said image sensing  
15 means and resetting a predetermined portion of said image sensing apparatus to a predetermined initial state in response to resumption of the external device.
2. The apparatus according to claim 1, wherein said control means resets said image sensing means to a  
20 predetermined initial state in response to resumption of the external device.
3. The apparatus according to claim 1 further comprising setting means for setting a reference position where image reading by said image sensing  
25 means is started in response to resumption of the external device,  
wherein said control means controls said image

sensing means to start image reading from the reference position in response to resumption of the external device.

4. The apparatus according to claim 1, wherein the  
5 predetermined initial state is a state wherein an optical unit in said image sensing means is at a predetermined position.

5. The apparatus according to claim 4, further comprising a motor as a driver for moving the optical  
10 unit,

wherein said control means resets said motor to an initial state in response to resumption of the external device.

6. The apparatus according to claim 1 further  
15 comprising memory,

wherein said control means resets said memory to an initial state in response to resumption of the external device.

7. The apparatus according to claim 1, wherein said  
20 control means resets at least one of home position detection, lamp adjustment, and shading data acquisition to the predetermined initial state in response to resumption of the external device.

8. The apparatus according to claim 1 further  
25 comprising operation means,

wherein when the external device is set in the suspend state, the external device is resumed in

accordance with predetermined operation by said operation means.

9. The apparatus according to claim 1 further comprising state detection means,

5 wherein when the external device is set in the suspend state, the external device is resumed in accordance with detection of a predetermined state by said state detection means.

10 10. The apparatus according to claim 1 further comprising notification means for notifying the external device of the predetermined initial state.

11. A control method for an image sensing apparatus which can be connected to an external device, receives power from the external device, and has image sensing  
15 means for converting an optical image of an object into an electrical image signal, the external device having a suspend/resume function of storing, for a program under processing, a state necessary for execution of the processing in memory and re-executing the  
20 interrupted processing of the program on the basis of stored contents, comprising:

the stop step of, when the external device is set in a suspend state during image sensing, stopping operation of at least a part of the image sensing  
25 means; and

the reset step of resetting a predetermined portion of the image sensing apparatus to a

predetermined initial state in response to resumption of the external device.

12. The method according to claim 11, wherein, in the reset step, image sensing means is reset to a

5 predetermined initial state in response to resumption of the external device.

13. The method according to claim 11, further comprising

the setting step of setting a reference position  
10 where image reading by the image sensing means is started in response to resumption of the external device, and

the control step of controlling the image sensing means to start image reading from the reference  
15 position in response to resumption of the external device.

14. The method according to claim 11, wherein the predetermined initial state is a state wherein an optical unit in the image sensing means is at a  
20 predetermined position.

15. The method according to claim 14, wherein the image sensing apparatus further comprises a motor as a driver for moving the optical unit, and

in the reset step, the motor is reset to an  
25 initial state in response to resumption of the external device.

16. The method according to claim 11, wherein

the image sensing apparatus further comprises  
memory, and

in the reset step, the memory is reset to an  
initial state in response to resumption of the external  
5 device.

17. The method according to claim 11, wherein, in the  
reset step, at least one of home position detection,  
lamp adjustment, and shading data acquisition is reset  
to the predetermined initial state in response to  
10 resumption of the external device.

18. The method according to claim 11, wherein  
the image sensing apparatus further comprises  
operation means, and

the method further comprises the step of, when  
15 the external device is set in the suspend state,  
resuming the external device in accordance with  
predetermined operation by the operation means.

19. The method according to claim 11, wherein  
the image sensing apparatus further comprises  
20 state detection means, and

the method further comprises the step of, when  
the external device is set in the suspend state,  
resuming the external device in accordance with  
detection of a predetermined state by the state  
25 detection means.

20. The method according to claim 11, further  
comprising the notification step of notifying the

external device of the predetermined initial state.

21. An image sensing apparatus connected to an external device having a suspend/resume function and driven upon receiving power from the external device,

5 comprising:

image sensing means for converting an optical image of an object into an electrical image signal;

control means for controlling to perform predetermined operation upon detecting that the  
10 external device is set in a suspend state; and

a backup battery for, when the external device is set in the suspend state, storing power necessary to perform the predetermined operation by said control means before the image sensing apparatus is set in the  
15 suspend state.

22. The apparatus according to claim 21, wherein the predetermined operation is operation of setting said image sensing apparatus in a predetermined initial state.

20 23. The apparatus according to claim 21, wherein the predetermined operation is operation of moving an optical unit in said image sensing means to a predetermined position.

24. The apparatus according to claim 23, further  
25 comprising a motor as a driver for moving the optical unit,

wherein the predetermined operation is operation

of resetting said motor to an initial state.

25. The apparatus according to claim 21, further comprising memory,

wherein the predetermined operation is operation  
5 of resetting said memory to an initial state.

26. The apparatus according to claim 21, wherein the predetermined operation is operation of resetting at least one of home position detection, lamp adjustment, and shading data acquisition to the predetermined  
10 initial state.

27. The apparatus according to claim 21, further comprising operation means,

wherein when the external device is set in the suspend state, the external device is resumed in  
15 accordance with predetermined operation by said operation means.

28. The apparatus according to claim 21, further comprising state detection means,

wherein when the external device is set in the  
20 suspend state, the external device is resumed in accordance with detection of a predetermined state by said state detection means.

29. An image sensing apparatus connectable to an external device having a suspend/resume function,  
25 comprising:

operation means; and

control means for resuming the external device in

accordance with predetermined operation by said operation means.

30. The apparatus according to claim 29, wherein the predetermined operation is operation of instructing  
5 image sensing.

31. An image sensing apparatus connectable to an external device having a suspend/resume function, comprising:

state detection means; and  
10 control means for resuming the external device in accordance with detection of a predetermined state by said state detection means.

32. The apparatus according to claim 31, wherein the predetermined state is a state wherein an original is  
15 placed at a predetermined position.

33. An image sensing apparatus connected to an external device having a suspend/resume function and driven upon receiving power from the external device, comprising control means for, when the external device  
20 is set in a suspend state, stopping said image sensing apparatus, and when the external device is resumed, controlling to perform predetermined operation upon receiving power from the external device.

34. The apparatus according to claim 33, wherein the  
25 predetermined operation is operation of setting said image sensing apparatus in a predetermined initial state.



35. A control method for an image sensing apparatus connected to an external device having a suspend/resume function, driven upon receiving power from the external device, and having image sensing means for converting  
5 an optical image of an object into an electrical image signal, comprising the steps of:

controlling to perform predetermined operation upon detecting that the external device is set in a suspend state; and

10 storing, when the external device is set in the suspend state, power necessary to perform the predetermined operation in the control step before the image sensing apparatus is set in the suspend state.

36. The method according to claim 35, wherein the  
15 predetermined operation is operation of setting the image sensing apparatus in a predetermined initial state.

37. The method according to claim 35, wherein the predetermined operation is operation of moving an  
20 optical unit in the image sensing means to a predetermined position.

38. The method according to claim 37, wherein the image sensing apparatus further comprises a motor as a driver for moving the optical unit, and  
25 the predetermined operation is operation of resetting the motor to an initial state.

39. The method according to claim 35, wherein

the image sensing apparatus further comprises memory, and

the predetermined operation is operation of resetting the memory to an initial state.

5 40. The method according to claim 35, wherein the predetermined operation is operation of resetting at least one of home position detection, lamp adjustment, and shading data acquisition to the predetermined initial state.

10 41. The method according to claim 35, wherein the image sensing apparatus further comprises operation means, and

the method further comprises the step of, when the external device is set in the suspend state,  
15 resuming the external device in accordance with predetermined operation by the operation means.

42. The method according to claim 35, wherein the image sensing apparatus further comprises state detection means, and

20 the method further comprises the step of, when the external device is set in the suspend state, resuming the external device in accordance with detection of a predetermined state by the state detection means.

25 43. A control method an image sensing apparatus which can be connected to an external device having a suspend/resume function and has operation means,

comprising the step of resuming the external device in accordance with predetermined operation by the operation means.

44. The method according to claim 43, wherein the  
5 predetermined operation is operation of instructing image sensing.

45. A control method for an image sensing apparatus which can be connected to an external device having a suspend/resume function and has state detection means,  
10 comprising the step of resuming the external device in accordance with detection of a predetermined state by the state detection means.

46. The method according to claim 45, wherein the predetermined state is a state wherein an original is  
15 placed at a predetermined position.

47. A control method for an image sensing apparatus connected to an external device having a suspend/resume function and driven upon receiving power from the external device, comprising the steps of:

20 stopping the image sensing apparatus when the external device is set in a suspend state; and  
performing predetermined operation upon receiving power from the external device in response to resumption of the external device.

25 48. The method according to claim 47, wherein the predetermined operation is operation of setting the image sensing apparatus in a predetermined initial

state.

49. A computer program product comprising a computer  
usable medium having computer readable program code  
means embodied in said medium for controlling an image  
5 sensing apparatus which can be connected to an external  
device, receives power from the external device, and  
has image sensing means for converting an optical image  
of an object into an electrical image signal, the  
external device having a suspend/resume function of  
10 storing, for a program under processing, a state  
necessary for execution of the processing in memory and  
re-executing the interrupted processing of the program  
on the basis of stored contents, said product  
including:

15 first computer readable program code means for,  
when the external device is set in a suspend state  
during image sensing, stopping operation of at least a  
part of the image sensing means; and

second computer readable program code means for  
20 resetting a predetermined portion of the image sensing  
apparatus to a predetermined initial state in response  
to resumption of the external device.

50. A computer program product comprising a computer  
usable medium having computer readable program code  
25 means embodied in said medium for controlling an image  
sensing apparatus connected to an external device  
having a suspend/resume function, driven upon receiving

power from the external device, and having image sensing means for converting an optical image of an object into an electrical image signal, said product including:

5           first computer readable program code means for controlling to perform predetermined operation upon detecting that the external device is set in a suspend state; and

                    second computer readable program code means for  
10   storing, when the external device is set in the suspend state, power necessary to perform the predetermined operation by said first computer readable code means before the image sensing apparatus is set in the suspend state.

15   51.   A computer program product comprising a computer usable medium having computer readable program code means embodied in said medium for controlling an image sensing apparatus which can be connected to an external device having a suspend/resume function and has  
20   operation means, said product including:

                    computer readable program code means for resuming the external device in accordance with predetermined operation by the operation means.

25   52.   A computer program product comprising a computer usable medium having computer readable program code means embodied in said medium for controlling an image sensing apparatus which can be connected to an external

device having a suspend/resume function and has state detection means, said product including:

computer readable program code means for resuming the external device in accordance with detection of a  
5 predetermined state by the state detection means.

53. A computer program product comprising a computer usable medium having computer readable program code means embodied in said medium for controlling an image sensing apparatus connected to an external device  
10 having a suspend/resume function and driven upon receiving power from the external device, said product including:

first computer readable program code means for stopping the image sensing apparatus when the external  
15 device is set in a suspend state; and

second computer readable program code means for performing predetermined operation upon receiving power from the external device in response to resumption of the external device.

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